

ABSTRACT

A parametric loudspeaker that directly generates multiple high frequencies to indirectly create lower frequencies through the use of substantially monolithic, large area, film transducers that are generally larger than a wavelength of the carrier frequency in diameter or cross section. These large area film transducers include but are not limited to electrostatic, electret, piezo film such as PVDF, electrothermal mechanical film, and planar magnetic

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